



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,778	09/06/2006	Markus Frey	SE/21-23025/A/PCT	4481

324 7590 03/04/2010

Ciba Corporation
Patent Department
540 White Plains Road
P.O. Box 2005
Tarrytown, NY 10591

EXAMINER

BALASUBRAMANIAN, VENKATARAMAN

ART UNIT	PAPER NUMBER
----------	--------------

1624

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/04/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

andrea.dececchis@basf.com
deborah.pinori@basf.com
sonny.nkansa@basf.com

Office Action Summary	Application No. 10/591,778	Applicant(s) FREY ET AL.	
	Examiner /Venkataraman Balasubramanian/	Art Unit 1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-22 is/are pending in the application.
- 4a) Of the above claim(s) 14-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 3-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1624

DETAILED ACTION

Applicants' response, which included cancellation of claim 2 and amendment to claims 1, 4, 6, 7, 12, 15 and 17, filed on 11/03/2009, is made of record. Claims 14-22 were withdrawn in the previous office action and claims 1 and 3-13 are now under consideration. In view of applicants' response, the 103 rejections made over claims 3-13 have been obviated. However, the following 103 rejections made over claim 1 are maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over Frey et al. WO 03/045919.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

Art Unit: 1624

only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Frey teaches the process for synthesis of amine ethers from secondary amino oxides, which include process of making instant compounds. See page 1, paragraph 6, and page 2 paragraphs 1-5 including formula A. Note the choice of E includes C₃-C₁₈alkenyl as required by instant claims. Note also the reaction is done in presence of hydrocarbon in general and the choice of hydrocarbon includes alkene as required by the instant claims. See pages 2-16 for various preferred embodiments of compounds and pages 18-21 for details of the process. See generic examples 1-28 shown in pages 21-35. Especially see Examples 1-26 shown in pages 35-50. Particularly see Examples 5, 12, 15, 19, 21, 24 and 26 wherein cyclohexene is used as alkene. Frey differs in not exemplifying aliphatic alkenes as required by the instant claims. However, Frey teaches

Art Unit: 1624

equivalency of those compounds exemplified in Examples 1-26 with those generically claimed for compound of formula A. Hence, one trained in the art would be motivated to make compounds of formula A including various choices of alkene with the guidance provided in examples 1-26 and expect the process to yield the desired product for the use taught in Frey.

Hence, one having ordinary skill in the art at the time of the invention was made would have been motivated to employ the process taught by Frey to the analogous starting materials and reactants of the instant invention along with suitable viscosity reducing agents and expect to obtain the desired product because he would have expected the analogous starting materials and reactants react similarly in view of the combine teaching of the prior art. It has been held that application of an old process to an analogous material to obtain a result consistent with the teachings of the art would have been obvious to one having ordinary skill. Note *In re Kerkhoven* 205 USPQ 1069.

Also see *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007), wherein the court stated that [w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

Such is the case with instant claims. Frey teaches process for a genus of compounds which include instant compounds and exemplifies the process for large number of compounds including cycloalkene as stated above. Hence, based on the

Art Unit: 1624

teaching that compounds taught, which provide guidance to choose various choices of E and all the variables substituents taught therein one trained in the art would be motivated to make compounds of formula A including those with E as alkene as permitted by the reference. Such compounds are within the skill set of one trained in the art.

This rejection is same as made in the previous office action but now limited to claim 1.

Applicants have relied unexpected superior results shown in comparative examples to overcome the rejection of claims 3-13 made in the previous office action. Hence, the 103 rejection over Frey of these claims is deemed as obviated. However, claim 1 is a generic claim and includes process of reacting any sterically hindered aminoxide with C₆-C₁₈alk-1-ene. Although, specification has unexpected/superior results, the comparison of prior process is rather limited and does not include the process of reacting any sterically hindered aminoxide with said 1-alkene. Hence, this rejection is deemed as proper.

Note Ex parte Gelles 22 USPQ 2nd 1318, especially the following quote: " The evidence relied upon also should be reasonably commensurate in scope with the subject matter claimed and illustrate the claimed subject matter " as a class" relative to prior art subject matter."

Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over Hafner et al. WO 01/92228.

Hafner teaches the process for synthesis of amine ethers from secondary amino oxides, which include process of making instant compounds. See page 2, paragraph 1, and paragraph 2 including formula A. Note the choice of E includes C₃-C₁₈alkenyl as required by instant claims. Note also the reaction is done in presence of hydrocarbon in general and the choice of hydrocarbon includes alkene as required by the instant claims. See pages 2-16 for various preferred embodiments of compounds and pages 16-21 for details of the process. See generic examples 1-28 shown in pages 21-35. Especially see Examples 1-26 shown in pages 56-66. Particularly see Examples 2 and 11 wherein cyclohexene is used as alkene.

Hafner differs in not exemplifying aliphatic alkenes as required by the instant claims. However, Hafner teaches equivalency of those compounds exemplified in Examples 1-27 with those generically claimed for compound of formula A. Hence, one trained in the art would be motivated to make compounds of formula A including various choices of alkene with the guidance provided in examples 1-27 and expect the process to yield the desired product for the use taught in Hafner.

Hence, one having ordinary skill in the art at the time of the invention was made would have been motivated to employ the process taught by Hafner to the analogous starting materials and reactants of the instant invention along with suitable viscosity reducing agents and expect to obtain the desired product because he would have expected the analogous starting materials and reactants react similarly in view of the combine teaching of the prior art. It has been held that application of an old process to

Art Unit: 1624

an analogous material to obtain a result consistent with the teachings of the art would have been obvious to one having ordinary skill. Note *In re Kerkhoven* 205 USPQ 1069.

Also see *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007), wherein the court stated that

[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

Such is the case with instant claims. Frey teaches process for a genus of compounds which include instant compounds and exemplifies the process for large number of compounds including cycloalkene as stated above. Hence, based on the teaching that compounds taught, which provide guidance to choose various choices of E and all the variables substituents taught therein one trained in the art would be motivated to make compounds of formula A including those with E as alkene as permitted by the reference. Such compounds are within the skill set of one trained in the art.

This rejection is same as made in the previous office action but now limited to claim 1.

Applicants have relied unexpected superior results shown in comparative examples to overcome the rejection of claims 3-13 made in the previous office action. Hence, the 103 rejection over Hafner of these claims is deemed as obviated. However,

Art Unit: 1624

claim 1 is a generic claim and includes process of reacting any sterically hindered aminoxide with C₆-C₁₈alk-1-ene. Although, specification has unexpected/superior results, the comparison of prior process is rather limited and does not include the process of reacting any sterically hindered aminoxide with said 1-alkene. Hence, this rejection is deemed as proper.

Note Ex parte Gelles 22 USPQ 2nd 1318, especially the following quote: " The evidence relied upon also should be reasonably commensurate in scope with the subject matter claimed and illustrate the claimed subject matter " as a class" relative to prior art subject matter."

Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over Hafner et al. WO 00/21933 in view of Frey or Hafner cite above.

Babiarz teaches a process for the synthesis of 4-substituted-N-(alk-2-en-1-yl)oxy- and araalyloxy-2,2,6,6-tetraalkylpiperidines using hydrogen peroxide. See pages 3-5 for the overall process and the definition of R-H which include alkenes of 3 to 20 carbons as required by the instant claims. See entire document. Particularly see examples 1-17. Especially see example 16 where octene is used as R-H.

Instant process requires use of organic hydroperoxide for the process while Babiarz teaches only hydrogen peroxide.

Frey and Hafner as noted above teaches use for organic hydroperoxide for such a process and again as noted above their teaching includes alkene as reactants.

Thus, one trained in the art would be motivated to combine the teaching of primary reference and the secondary reference and use the combine teaching including

Art Unit: 1624

use of organic hydroperoxide for the said process. It has been held that application of an old process to an analogous material to obtain a result consistent with the teachings of the art would have been obvious to one having ordinary skill. Note *In re Kerkhoven* 205 USPQ 1069 and *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007).

This rejection is same as made in the previous office action but now limited to claim 1. Applicants' argument to overcome this rejection is not persuasive. Babiarz teaches the overall process using hydrogen peroxide and step ii clearly teaches instant process using hydrogen peroxide. The secondary references teach use of hydrogen peroxide for the process. Hence, one trained in the art would be motivated to combine the process taught in these references including use of organic peroxide for the reaction of hydrocarbon for with of sterically hindered aminoxide. Hence, this rejection is deemed as proper.

Furthermore, applicants have relied unexpected superior results shown in comparative examples to overcome the rejection of claims 3-13 made in the previous office action. Hence, the 103 rejection over Hafner of these claims is deemed as obviated. However, claim 1 is a generic claim and includes process of reacting any sterically hindered aminoxide with C₆-C₁₈alk-1-ene. Although, specification has unexpected/superior results, the comparison of prior process is rather limited and does not include the process of reacting any sterically hindered aminoxide with said 1-alkene. Hence, this rejection is deemed as proper.

Note *Ex parte Gelles* 22 USPQ 2nd 1318, especially the following quote: " The evidence relied upon also should be reasonably commensurate in scope with the

Art Unit: 1624

subject matter claimed and illustrate the claimed subject matter " as a class" relative to prior art subject matter."

Allowable Subject Matter

Claims 3-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Election/Restrictions

This application contains claims 14-22 drawn to an invention nonelected with traverse in the reply filed on -05/14/2009. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1624

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is James O. Wilson, whose telephone number is 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAG. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

//Venkataraman Balasubramanian//

Primary Examiner, Art Unit 1624

Application/Control Number: 10/591,778
Art Unit: 1624

Page 12